United States Court of Appeals

for the

District of Columbia Circuit

TRANSCRIPT OF RECORD

UNITED STATES
COURT OF APPEALS FOR THE
DISTRICT OF COLUMBIA
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IN THE

United States Court of Appeals for the District of Columbia

307

No. 7191.

IN EQUITY.

GYRO PROCESS COMPANY, A CORPORATION,
PLAINTIFF-APPELLANT,

VS.

CONWAY P. COE, COMMISSIONER OF
PATENTS, DEFENDANT-APPELLEE.

APPEAL FROM THE DISTRICT COURT OF THE UNITED
STATES FOR THE DISTRICT OF COLUMBIA.

APPELLANT'S BRIEF.

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This cause comes before your Honors on appeal from a decree dismissing a bill to enforce the issuance of Letters Patent, rendered by the District Court of the United States for the District of Columbia.

The appellant, Gyro Process Company, is a corporation of Michigan and the assignee of an application for Letters Patent for an improvement in the art of "CONVERTING HEAVY MINERAL OILS INTO LIGHTER OILS," which application has become identified as Serial No. 704,341, filed April 5, 1924.

STATEMENT OF THE CASE.

The Alexander application was filed April 5, 1924, and prosecuted to allowance. The case was voluntarily forfeited and renewed January 14, 1931. On the prosecution of the renewal, claims 24-30 were finally rejected on May 18, 1933, claims 1-11 standing allowed. (Plaintiff's Exhibit 2).

An appeal from the Examiner's final rejection was duly filed to the Board of Appeals, United States Patent Office, on November 17, 1933. On July 7, 1934, the Board of Appeals rendered a decision affirming the rejection by the Examiner of Claims 24-30. (Plaintiff's Exhibit 2). After the decision of the Board of Appeals, applicant's attorney, feeling that the claims theretofore submitted did not adequately define applicant's invention and that applicant was entitled to further protection, interviewed the Examiner with a view of obtaining allowance from him of claims patentable over the art which was relied upon in the rejection of claims 24-30. (R. pp. 55, 56).

As a result of the interview, an amendment bearing date September 7, 1934, was submitted, adding claim 31. (R. p. 55). The Examiner considered the claim allowable and recommended its entry. This recommendation was approved September 10, 1934, by the First Assistant Commissioner of Patents. (R. p. 57). An official indication of the allowance of claim 31 was made in the Office Action of September 12, 1934, which indicated, further, that action on the case would be held in abeyance pending the outcome of a Motion under Rule 109, filed in Interference 67,970. (Paper No. 42, Plaintiff's Exhibit 2).

Interference No. 67,970 was declared February 23, 1934, between applications of George B. Murphy, whose assignee is the Atlantic Refining Company of Philadelphia; Jean Delattre Seguy, whose assignee is the Universal Oil Products Company of Chicago, and Malcolm H. Tuttle, whose assignee is the plaintiff, The Gyro Process Company. (Admission, Answer, Paragraph X). The interference count is set forth in paragraph V of the bill of complaint. (R. p. 4) (Admission, Answer, Paragraph XI). During the interference proceedings, the plaintiff, through its assignee, Tuttle, brought a motion to add the Alexander application to the interference involving claim 32 thereof, which claim was inserted in the Alexander application by amendment. (R. pp. 4 and 5) (Admission of Allegation XII in Answer).

Universal Oil Products Co., through its assignor, Seguy, filed a motion to substitute an earlier filed application of Alther, in common ownership. (R. p. 5) (Admission, paragraph XIII of Answer).

Party Seguy, well knowing that the application of Alexander was filed long prior to the conception date of Alther, opposed the adding of party Alexander to the interference on the ground that the proposed count was unpatentable. (Admission, paragraphs 14 and 16 of the Bill of Complaint, made by paragraphs 14 and 16 of Answer) (R. p. 11).

The Examiner thereupon rendered a decision dated April 19, 1935, denying Tuttle's motion to add the Alexander application, with proposed claim 32, holding that the proposed claim was unpatentable over certain art and holding, further, that the count upon which the interference was declared was unpatentable. The Examiner further gratuitously held previously allowed claim 31 of the Alexander application as unpatentable. (R. pp. 105-110, inclusive). Tuttle took no appeal to the Board of Appeals from the Examiner's decision. Thereafter, on June 12, 1935, the Examiner rejected previously allowed claim 31 and claim 32 which had been added as a proposed count for the interference. In an amendment, filed June 19, 1935, responding to the Examiner's rejection, claim 33 was added. (R. p. 60).

On June 26, 1935, the Examiner made a final rejection of claims 31, 32 and 33. An appeal was duly filed from the Examiner's final rejection.

In his final rejection, the Examiner relied upon the references Ruff 1,325,582, Egloff 1,835,765 and Knox 1,428,641 (R. p. 73) and upon the ground of alleged "estoppel or *res adjudicata*." The Examiner stated his position as follows:

> "Claims 31 and 32 are finally rejected on the ground of estoppel or *res adjudicata,* because applicant, through his assignee, proposed for the interference, under Rule 109, a count with substantially the same subject matter as in these two claims, and took no appeal from the adverse decision of the Primary Examiner on this motion." (R. p. 73).

The Board of Appeals, while recognizing that Alexander was not involved in Interference 67,970, held:

> "We consider that there is an estoppel against the assignee, the real party in interest, as he took no appeal from an adverse decision of the Primary Examiner on his motion to add certain counts." (R. p. 77).

The Board of Appeals, too, held that claims 31 and 32 were anticipated by Ruff 1,325,582 and that claim 33 was

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> "substantially a duplicate of previously rejected claim 24, held unpatentable over the Knox patent from which the Board of Appeals sustained the final rejection." (R. p. 78).

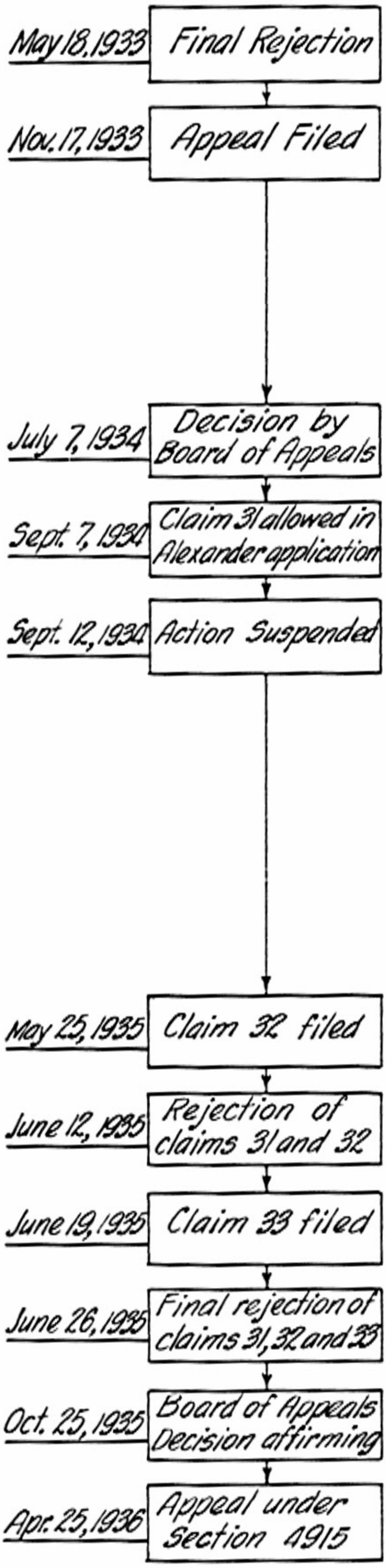
The Board of Appeals then went on, *sua sponte,* to hold that claims 31 and 32 were likewise such that they,

> "do not present any distinctive steps of a method different from those stated to be old by the Board in this decision and that the holding of *res adjudicata* is proper also as to these two claims." (R. p. 79).

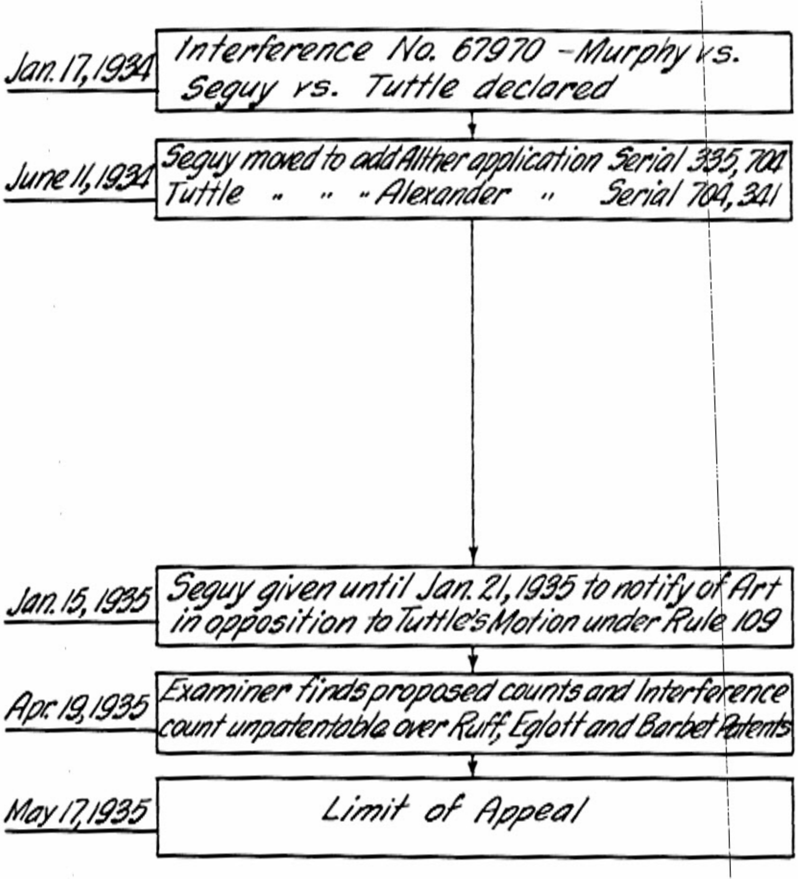
The Examiner did not base his "*res adjudicata*" on the previous Board's decision, since he himself recognized the difference between the subject matter of claim 31 from that involved in the former appeal, as witnessed by his allowance of claim 31 *after* the Board's decision with respect to claims 24-30.

In the interests of simplicity, there is reproduced opposite this page a chart indicating the chronological sequence of some of the salient steps in the prosecution of the Alexander application and Interference 67,970.

Prosecution of the Alexander Application



Prosecution of Interference No. 67970 (Murphy vs. Seguy vs. Tuttle)


Jan. 17, 1934
Interference No. 67970 - Murphy vs. Seguy vs. Tuttle declared
June 11, 1934
Seguy moved to add Alther application Serial 355,700
Tuttle " " " Alexander " Serial 704,341
Jan. 15, 1935
Seguy given until Jan. 21, 1935 to notify of Art in opposition to Tuttle's Motion under Rule 109
Apr. 19, 1935
Examiner finds proposed counts and Interference count unpatentable over Ruff, Eglott and Barbet Patents
May 17, 1935
Limit of Appeal

Filing dates of the several applications

Alexander;	Serial No. 704,341	filed	Apr. 5, 1924
Alther	" " 355,700	"	Apr. 17, 1929
Tuttle	" " 384,030	"	Aug. 7, 1929
Seguy	" " 424,754	"	Jan. 31, 1930
Murphy	" " 428,573		Feb. 15, 1930

QUESTIONS INVOLVED.

I.

Is there any essential difference respectively between the count of the interference 67,970, and claims 31, 32, and 33 of Alexander?

II.

Assuming that the count of the interference and claims 31, 32, and 33 of Alexander present, *inter alia,* no essential difference, was party Tuttle of the interference obliged to take an appeal from the Examiner's decision dissolving the interference on the ground that the count was unpatentable in order to preserve to Alexander his right in claim 31, standing allowed in his application and never therein rejected, merely because the Tuttle application and the Alexander application were in common ownership?

III.

Assuming that there is no essential difference between the count of the interference and claims 31, 32, and 33, *inter alia,* and assuming further that party Tuttle was obliged to take an appeal from the Examiner's decision in order to shield the Alexander application from such estoppels as might arise from a failure to take an appeal because of the common ownership, did in fact, any estoppels arise because of failure to appeal from the Examiner's decision holding the count of the interference and the proposed count unpatentable over art?

IV.

Was it proper for the Board of Appeals to inject for the first time in their decision from the Examiner's rejection, an entirely new alleged ground, namely "*res adjudicata,*" for failure to appeal from the first Board's decision holding claims 24-30 unpatentable?

V.

Where a Primary Examiner allows a claim after a decision of patentability by the Board of Appeals, within a time in which an appeal from the Board's decision could have been filed, can it be said that a claim, to wit, claim 31, so allowed, is not patentably different from a claim theretofore subject to rejection, to wit, claim 24, which rejection had been affirmed by the Board?

VI.

Is not the ultimate question for decision by the Court below on a bill in equity to obtain a patent, whether or not the claims rejected by the Commissioner are in fact unpatentable over the art alleged to anticipate them so that, in equity and good conscience, the applicant is, under the law, entitled to a patent therefor?

VII.

Are claims 31 and 32 in fact unpatentable over Ruff 1,325,582 in view of Egloff 1,835,765?

VIII.

Is claim 33 in fact unpatentable in view of Knox Patent 1,428,641?

ERRORS TO BE RELIED UPON.

From the foregoing, it will be apparent that there are three principal questions involved, namely (a) the question of "estoppel" for failure on the part of Tuttle to appeal from the Examiner's decision in the interference, (b) the question of *"res adjudicata"* for failure to appeal from the Board's decision on the question of patentability of claims 24-30 and (c) the ultimate question of whether or not the claims are in fact unpatentable over the art alleged to anticipate them.

It is appellant's position that there is no estoppel. It is appellant's position that, since claim 31 was allowed *after* the Board's decision on claims 24-30, that there can be no *"res adjudicata."* It is appellant's position, further, that the claims are patentable over the art.

PERTAINING TO ESTOPPEL.

It will be observed that the questions involved, at first blush complicated, are in fact, simple. It may be assumed, but not admitted, that the count of the interference and claims 31, 32, and 33 all relate to much the same subject matter. It may be assumed, but not admitted, that Tuttle was obliged to appeal to shield other applications in common ownership containing similar subject matter from such estoppels as might have arisen. With such assumptions, the questions outlined, *supra,* under I and II are not necessary for a decision on the question of "estoppel." Let us assume that the Alexander application was the one actually involved in Interference 67,970 and claim 31 was the very count involved in that interference. Under these circumstances, does a decision by the Examiner of Interferences, dissolving the interference on the ground that the count is unpatentable, require a party to appeal?

It is thought that this question has long been settled by

Gold v. *Gold,* 34 App. D. C. 229.

In that case, Edward Gold and Egbert Gold were involved in an interference. Edward Gold moved to dissolve the interference on the grounds that,

1. Egbert Gold had no right to make the claims in view of certain art.

2. The claims were not patentable to Egbert Gold in view of the art.

The Examiner dissolved the interference holding that the counts of the issue were not patentable to Egbert Gold and, further, that the counts were not patentable at all. Neither party appealed from this decision. Edward Gold's application was then rejected *ex parte.* A new set of claims were added. These were rejected on the ground that they had become *res adjudicata* by the decision on the motion to dissolve. On appeal, the Examiner was reversed on all claims but one. A new interference was then declared between the revised application of Edward Gold with the same application of Egbert Gold. Edward Gold then moved to dissolve the new interference on the grounds;

1. That the claims were not patentable to Egbert Gold in view of former patents issued to him.

2. That he had no right to make the claims.

Egbert Gold moved to dissolve the interference on the grounds;

1. That Edward Gold had no right to make the claims.

2. That the claims were not patentable as to him in view of certain patents cited.

The Examiner denied both motions, whereupon testimony was taken and, on final hearing, priority was awarded to Edward Gold. Appeal was taken to the Examiners in Chief who agreed with the Examiner, whereupon appeal was taken to this honorable Court on two points. In the language of the Court;

> "The first relates to the patentability of the issue and his contention that this is a question which has been finally adjudicated on the original motion to dissolve the interference, and was, therefore, conclusive as between all the parties * * *."

It is this first point which controls the question of estoppel. On this point, the Court said;

> "It is the settled doctrine of this court that the allowance of a claim in the Patent Office is conclusive of the question of patentability in an interference proceeding, because the appellate jurisdiction in respect to patentability is limited to cases where claims have been rejected on that ground. (*Johnson* v. *Mueser*, C. D., 1909, 437, 145 O. G. 764, 29 App. D. C. 61, and cases cited; *Dunbar* v. *Schellenger*, C. D., 1907, 567, 128 O. G. 2837, 29 App. D. C. 129). But whether a former adjudication against the patentability of claims, made on motion of one of the parties in interference to dissolve on that ground, is conclusive of the right to reconsider

the question of patentability of the several applications, *ex parte,* and then to renew the interference, formerly dissolved, is a question that has not been decided.

"As we have seen, the first motion to dissolve, *from the decision on which no appeal was taken,* was granted on the ground that the claims in the issue of the interference were not patentable at all in view of the prior art. Two claims of the issue were not included in that adjudication, as they were not embraced in the motion. As the result of the order of dissolution, each applicant was referred back to the Primary Examiner for separate action. The ordinary result of this would be the final rejection of the claims of both parties which had been held unpatentable. Edward E. Gold amended his claims and demanded reconsideration. The Examiner rejected them but on appeal to the Examiners-in-Chief they were allowed. Egbert H. Gold's application was also reconsidered and the interference was redeclared. *Notwithstanding the amendments referred to the new claims are not essentially different from the old ones.*

"It is also settled that where an application has been finally rejected by the Commissioner in an *ex parte* proceeding, that adjudication may be relied on by him as conclusive on a second application for the same invention. (*In re Barratt's Appeal*, C. D., 1899, 320, 87 O. G. 1075, 14 App. D. C. 255; *In re Fay*, C. D., 1900, 232, 90 O. G. 1157, 15 App. D. C. 515; *In re Edison*, C. D., 1908, 327, 133 O. G. 1190, 30 App. D. C. 321). A qualification of this doctrine was indicated by the following language in the opinion by Justice Morris in Barratt's case:

> 'In what he have said we do not desire to be understood that the Patent Office may not, if it thinks proper so to do, entertain and adjudicate a second application for a second patent after the first application has been rejected. What we decide is that it is not incumbent upon the Office as a duty to entertain such applications and that if it refuses to entertain them it has a perfect legal right so to do. An applicant is not legally aggrieved by such refusal.'

"*Therefore, in so far as the public interest, of which the Commissioner is the representative, was concerned, it seems that he had the power to permit this reconsideration and allowance.* The doctrine of *res adjudicata* necessarily applies in favor of the successful party to an interference to whom an award of priority has been made, against his opponent's attempt to renew the interference upon a new application with claims for the same invention although in different or broader form. (*Blackford* v. *Wilder,* C. D., 1907, 491, 127 O. G. 1255, 28 App. D. C. 535; *Horine* v. *Wende,* C. D., 1907, 615, 129 O. G. 2858, 29 App. D. C. 415; *Carroll* v. *Hallwood,* C. D., 1908, 444, 135 O. G. 896, 31 App. D. C. 165).

"While the question of the patentability of the issue will not be entertained on appeal from an award of priority, the right of one of the parties to make the claims under the disclosures of his application will be entertained as an ancillary question for the reason that—

> 'If it be incorrectly held that such party has the right to make the claim priority may be awarded to him and his adversary be deprived of a substantial right in that he is not given a claim where he necessarily is the prior inventor, his adversary never having made the invention. (*Podlesak* v. *McInnerney,* C. D., 1906, 558, 120 O. G. 2127, 26 App. D. C. 399).'

"As a consequence of the doctrine established by that case, it has been held that where an interference has been dissolved on that ground, without appeal from the decision, this right to make the claim must be considered *res adjudicata* in a later interference between the parties on the same application. (*U. S. ex rel. Newcomb Motor Co.* v. *Moore,* C. D., 1908, 332, 133 O. G. 1680, 30 App. D. C. 464). In that case Newcomb had received a patent but before its issue Thomson and others had applications pending in the Office, the claims of which did not conflict with Newcomb's. Hence no interference had been declared. When the parties saw Newcomb's patent they amended by copying every one of its claims. Interferences having been declared between the amended applications and the patent, Newcomb moved to *dissolve on the ground that his opponents had no right to make those claims under the disclosures of their applications.* The motion was sustained by the Examiner, and the opponents took an appeal to the Commissioner, which they thereafter abandoned. After withdrawing their appeals they proceeded *ex parte* and secured another allowance of their claims as being within the disclosures. The interference was then again declared. Newcomb moved to dissolve on the ground that the question of his opponents' rights to make the claims was concluded by the judgment on his first motion. This contention was sustained on a petition for mandamus to the Commissioner to compel him to give effect to the former judgment and vacate the later proceedings for interference. That case is relied on by appellant as governing the question under present consideration. *We cannot agree with the contention.* The right of one of the parties to make claims is inseparably connected with that of priority. *When adjudged that one of the parties had no right to make the claims*, in other words, that his description fails to show a conception of the invention of the issue, the other, who thereby appeared to be the sole inventor, was necessarily entitled to the award and to his patent. The effect of the decision is to establish his right of property in the invention, and he is entitled to the benefit without further impeachment of that right by his adversary in renewed litigation in the Patent Office. If the losing party can go back to the Examiner, and, proceeding *ex parte*, secure an allowance of his right to make the claims and then renew the litigation with his adversary, there might be no end to it. It is to meet conditions of the kind that the salutary doctrine in respect of the conclusiveness of former judgments had been applied in proceedings in the Patent Office. On the other hand the patentability of a described invention is a question that arises on each application when presented, and is necessarily determined *ex parte*. *It is only when patentability has been allowed in the ex parte proceeding that an interference with a like application of another can be declared.* This allowance is not appealable. It is true that the patentability of the claims of an issue in interference may be questioned in a motion to dissolve. (Patent Office Rule 122). Why this is permitted by the rule we do not understand, unless it be to enable the Commissioner to reexamine the question in the light of argument and put an end to useless litigation if he find that an allowance of patentability ought not to have been made in the first instance. So finding he acts for the protection of the public from an unauthorized monopoly and dissolves the interference so that each application may be rejected. The decision determines no right between the two opponents but one between them both, on one side, and the public on the other. If either desire to appeal from the final order of rejection, he must do so, *ex parte* in regular course of procedure. (*In re Fullagar,* C. D., 1909, 270, 138 O. G. 259, 32 App. D. C. 222; *Sobey* v. *Holsclaw,* C. D., 1907, 465, 126 O. G. 3041, 28 App. D. C. 65). That the question is to be considered as one between the public and the parties, and not between the latter, is also evidenced by the provisions of Rule 126 which authorizes the Examiner of Interferences, and the Examiners-in-Chief to direct the attention of the Commissioner to matters not relating to priority. Moreover the Commissioner may, with or without such direction or attention, raise the question of patentability of his own motion, and send the application back for rejection without deciding the question of priority, or he may, after the question of priority has been determined, reject the ap-

> plication of the successful interferant, and put him upon an *ex parte* appeal. (*Sobey* v. *Holsclaw,* C. D., 1907, 465, 126 O. G. 3041, 28 App. D. C. 65; *Seymour* v. *Brodie,* C. D., 1897, 372, 79 O. G. 509, 10 App. D. C. 567). *We must hold that the question of patentability was not concluded by the decision of the original motion to dissolve the interference on that ground.*" (Emphasis ours).

The proposition advanced by the Patent Office, that Tuttle was obliged to take an appeal in order to preserve to Alexander his right in an allowed claim which had never in his application been rejected, is a startling one. The Statute with regard to appeals (U. S. Code, Title 35, Sec. 57) (Revised Statutes, Sec. 4909) states:

> "Every applicant for a patent or for the reissue of a patent, any of the claims of which have been *twice* rejected, and every party to an interference, may appeal from the decision of the Primary Examiner, or of the Examiner in charge of the interference in such case, to the Board of Examiners-in-Chief; having once paid the fee for such appeal."

It will be apparent to your Honors that Alexander was not a *party* to any interference. The motion to involve his application was denied. Claim 31 stood allowed and was not only not once rejected, but was not under rejection at all. If the action of the Primary Examiner in interference 67,970 can be considered as a rejection of claim 31 of Alexander, then, in such event, Alexander's claim had been but *once* rejected and he was not in a position to appeal. Since Alexander was under no duty to appeal, it is difficult to understand how Tuttle's failure to appeal could have any effect upon the Alexander application, simply because the two applications were in common ownership.

Another case containing an exposition of the views of this honorable Court is *American Cable Co., Inc., et al.* v. *Roebling's Sons Co. et al.,* 65 F. (2d) 801, 62 App. D. C. 168, in which the Court said:

> "When the interferences were dissolved appellants were reinstated to the status of *ex parte* applicants as to all claims excepting the two which were allowed, and which are involved in the redeclared interference. The only action taken by the primary examiner was to redeclare the interference on the two claims. He has not rejected the claims excluded from the interference. Under rule 134 two rejections of appellants' claims are required before they will have the right to an *ex parte* appeal to the Board of Appeals. We cannot assume that a patent will ultimately be refused by the primary examiner since new evidence may be presented. In other

> words a new case on the claims considered by the Board of Appeals in the interference may be made before the primary examiner, and the primary examiner in that instance would not be bound by the decision of the Board of Appeals, since it acted solely upon the motion to dissolve the interference.
>
> "Under the procedure followed in the Patent Office, affidavits cannot be used on motion to dissolve. but may be used as to prior art, and on the question of patentability over the prior art. They will be considered by the primary examiner and if rejected a request may be made for reconsideration and argument, either with or without further affidavits; and only then in case of refusal to allow the claims by the primary examiner is there a case for *ex parte* appeal to the Board of Appeals."

In the instant case, an appeal by Tuttle would have served no useful purpose as to Tuttle. The filing date of the Alexander application was long prior to the conception date of Tuttle and of the other parties to the interference. It would have been an idle thing for Tuttle to appeal the Examiner's decision well knowing that the interference would not have continued in any event since, had it been declared, the other parties would have been put under order to show cause why judgment on the record should not be rendered against them.

The Primary Examiner cited *Lothrop et al.* v. *Robertson,* 61 F. (2d) 404, 61 App. D. C. 252. In that case, claims 1 and 2 were allowed and involved in an interference, *Lothrop* v. *Bock*. Lothrop moved to dissolve the interference on the ground that Bock could not make the claims for that the operation characterized as "coining" was then called "upsetting." The Law Examiner held that "upsetting" did not correctly describe the operation of either party, though the actual operations were essentially the same. A motion to amend was then allowed employing the word "forging" instead of "upsetting." At this point, the French patent to Renault was brought to the Examiner's attention, who held it to be a statutory bar to Lothrop's right to a patent on the proposed counts. The Law Examiner ruled that proposed count 3 differed from proposed count 1 in the act of carburizing and hardening the green roller, which, however, in view of the prior art, did not involve invention. The interference was dissolved and neither party appealed. Lothrop then prosecuted his case *ex parte.* The Examiner held that counts 1 and 2 of the application were substantially the same as the proposed counts of the interference, differing only in the use of the word "coining" instead of "forging." The Board rules that the rejected claims were substantially the same as the proposed counts in the Lothrop-Bock interference and that the matter was *res adjudicata.*

The Court on appeal applied

> *Blackford* v. *Wilder,* 28 App. D. C. 535;
>
> *In re Marconi,* 38 App. D. C. 286;
>
> *United States ex rel. Newcomb Motor Co.* v. *Moore,* 30 App. D. C. 464.

The Court also referred to

> *In re Capen,* 43 App. D. C. 342;
>
> *In re Doble,* 57 App. D. C. 10.

The *Newcomb Motor* case and the cases prior thereto were discussed and distinguished by the Court in *Gold* v. *Gold.* The *In re Capen* case was one in which an estoppel arose for failure to present claims which could be made by the interfering parties under Rule 109. That situation is not present here. In *In re Doble,* an interference was declared between Doble and Scott. Doble moved to dissolve the interference on the ground that Scott had no right to make the two claims corresponding to the issue. This motion was sustained, the interference was dissolved and no appeal was taken. Scott then cancelled the claims corresponding to the issue and they were allowed to Doble. Later, a patent was granted to Scott on his application thus limited. After the issue of the Scott patent, Doble copied additional claims from Scott and asked for another interference. The Examiner held that Doble was estopped by his failure to present the claims by motion under Rule 109. The Court affirmed this decision in view of *In re Capen.*

In the *Lothrop* case, it will be noted that no motion was made *inter partes* under Rule 109, to add the proposed claims to the issue. The estoppel in the *Lothrop* case, therefore, was for failure on the part of Lothrop to suggest the proposed claims as counts of the interference under Rule 109. It was not a case in which a claim stood allowed in the application of one not even a party to the interference. If Tuttle had not brought a motion to add counts, Tuttle would have been estopped in later attempting to claim subject matter which should have been made a part of the interference. The facts in the Lothrop case do not apply to the instant situation. The only reason for attempting to involve Alexander as a party to the interference was to enable the Examiner to dispose of the matter by putting the other parties under order to show cause why judgment on the record should not be rendered against them. Alexander had a filing date of April 5, 1924, many years prior to the earliest filing date of any of the other parties involved. The instant case is not one in which, after the termination of an interference, a party thereto attempts to claim subject matter, not theretofore claimed, which could have been made a part of the interference.

Furthermore, claim 31 contained an *important limitation* which differed both from the count of the interference and the proposed count, claim 32.

In the foregoing discussion, it was assumed that claims 31, 32, and 33 were of substantially the same scope. The fact of the matter is, however, that claims 31 and 33 differ from claim 32 in a very important respect. It will be noted that claim 31 contains the following limitation;

> "contacting the cracked vapors with a stream of the unvaporized oil withdrawn from said evaporating zone, to reduce said unvaporized oil to a heavy residue *chiefly by the sensible heat of said vapors.*" (R. p. 7).

Claim 33 contains the following limitation;

> "contacting said unvaporized oil with said superheated vapors to permit the *sensible heat thereof* to reduce the unvaporized oil to a heavy residue."

Both the count of the interference (R. p. 4) and claim 32 (R. p. 7) proposed by Tuttle as an additional count of the interference, involving Alexander, *do not contain* this limitation. It will be noted that claim 32 simply recites the contacting of the vapors with the unvaporized oil.

It will be seen, therefore, that, even if an estoppel runs against Alexander for Tuttle's failure to take an appeal with respect to the count of the interference and the proposed count (Claim 32) it is not seen how this estoppel could run against claims involving *different* subject matter.

PERTAINING TO RES ADJUDICATA.

The Board of Appeals for the first time rejected claims 31, 32, and 33 on the ground of "*res adjudicata,*" saying;

> "There was no appeal from the decision of the Board as to these claims. It is our view that claim 33 is much the same in substance as claim 24, previously considered by the Board, and that the rejection on the ground of *res adjudicata* is proper. We note that the Board considered the Knox patent No. 1,715,239, whereas the examiner cites Knox 1,428,641. In both of these patents, however, cracked vapors supply heat to residual oil. In Knox 1,428,641 additional gas *may* be used in this connection. We also feel that claims 31 and 32 do not present any distinctive steps of a method different from those stated to be old by the Board in this decision

> and that the holding of *res adjudicata* is proper also as to these two claims. We note that these claims define the heating of a hydrocarbon oil in an *elongated confined stream* and that unvaporized oil is subjected to the sensible heat of the vapors *chiefly,* but in our opinion these phrases in claims 31 and 32 do not present any material distinction from the method defined in claim 33. The gist of all three of these claims is covered in the rejection of claims 23 to 30 in the prior decision of this Board. Therefore, the rejection on *res adjudicata* is proper as to claims 31 and 32 also."

It will be noted that the *"res adjudicata"* raised by the Board was not the *"res adjudicata"* or "estoppel" relied upon by the Examiner. The Board was taking the surprising position that the allowance of a claim, namely claim 31, *after* the Board's decision, could be *res adjudicata.*

In *Gold* v. *Gold,* the Court said;

> "Therefore, in so far, as the public interest of which the Commissioner is the representative, was concerned, it seems he had the power to permit this reconsideration and allowance."

It would appear obvious that the allowance of a claim by the Examiner in the light of a decision with respect to other claims *after* such decision clearly shows:

a. That the claim allowed *after* the Board's decision was patentable over the art relied upon by the Examiner in rejecting the claims before the Board.

b. The claim allowed *after* the Board's decision was patentably different from the claims held by the Board to be properly rejected on such art.

How the Board could have reached its conclusion that the rejection of claim 31 was *"res adjudicata"* is not in the least understood.

An interference is never declared unless the count thereof is patentable to all parties concerned. It is urged by the Commissioner that the count of the interference was the same as claim 31 and it is a Conclusion of Law rendered by the Court below that:

> "1. There is no essential difference between claims 31, 32, and 33 and claims 23-30 inclusive which were considered by the Board of Appeals on the first appeal in the Alexander application."

The Patent Office allowed the count of the interference not once but *three* times. The count of the interference was held patentable in the application of Murphy. It was held patentable in the application of Seguy. It was held patentable in the application of Tuttle. Claim 31 likewise was held patentable by the Examiner though claims 23-30 of the Alexander application were held unpatentable by the

Examiner and this holding was affirmed by the Board. It would appear self evident that a claim which was unpatentable *must* perforce be different than a claim which is patentable.

Since the difference between claims 31 and 33 over claims 23-30 is intimately concerned with the prior art, this will be discussed more fully herein below, in considering patentability of these claims over the art.

At this point, however, the attention of your Honors is respectfully invited to the fact that claims 31 and 33 contain an important limitation pointed out *supra*, that the reduction of unvaporized oil to a heavy residue is accomplished *"chiefly by the sensible heat of said vapors"* (Claim 31), or in such a manner as to "permit the *sensible heat*" of the vapors to reduce the unvaporized oil to a heavy residue. (Claim 33). This is an important limitation which serves clearly, as will be hereinafter more fully pointed out, to distinguish these claims, decisively, from the prior art.

It would appear, however, that, in view of the facts in the instant case, that it is error for the Board to apply the doctrine of *"res adjudicata"* arising out of the Board's first decision, to a claim held patentable by the Examiner *after* that decision.

PERTAINING TO PATENTABILITY.

The Court below held that claims 31 and 32 are not patentable over the patent to Ruff 1,325,582, in view of the patent to Egloff 1,835,765. (R. p. 15). It was held, too, below, that claim 33 is not patentable in view of the Knox patent 1,428,641. (R. p. 15).

THE ALEXANDER PROCESS.

Before entering upon a discussion of patentability, let us examine the process of the Alexander application as covered by claims 31, 32 and 33. There is in evidence, as Exhibit 1, a diagram which is a reproduction of a diagrammatic view on an enlarged scale of the apparatus of Figure 2 of the Alexander application. (R. p. 23). Figure 2 is shown at page 53 of the record. Oil is charged through pipe coil 46 of the furnace 31 and is heated to a vaporizing temperature. If hydrocarbon oil is heated to a sufficiently high temperature, it will decompose or "crack." Prior to reaching the cracking temperature, the oil will boil and emit vapors. The heating in coil 46 is not to a cracking temperature but only to such temperature that the oil will emit vapors. The higher boiling hydrocarbons contained in the oil will remain in a liquid state. The heated oil is then passed into a chamber 40 where the pressure is reduced due to its passage from a small pipe into an enlarged zone. Here vapors are separated from the unvaporized oil. The vapors are withdrawn through pipe 6 and passed through pipe 5 in parallel flow to a heater 7. The vapors, during their passage through pipes 5, are highly heated to temperatures up to 1200°F. This heating of the vapors will cause them to crack or be converted from high boiling hydrocarbons into lower boiling hydrocarbons. Since all of the hydrocarbons heated to cracking temperature are in a vapor state, the process is called "vapor phase cracking." The advantage of cracking in the vapor phase is that more cyclic hydrocarbons are produced. (R. p. 25). These hydrocarbons, called aromatic hydrocarbons, have antiknock properties so that the motor fuel produced is a better one than that produced when the hydrocarbons are cracked in the liquid phase. (R. pp. 25 and 26). The higher compression ratios of modern automobile engines are such that there is an increased tendency to knock, making liquid phase cracked gasoline less desirable (R. p. 26).

The vapors are withdrawn from the cracking tubes through pipe 56 which communicates with the manifold 7. They are then passed into a chamber 43 into which the unvaporized oil from the chamber 40 passes through pipe 51. It will be noted that the unvaporized oil has been heated only to vaporizing temperature, the oil having been subjected only to heating in the pipe coil 46. (R. p. 46). The vapors, however, are subjected to high temperatures of between 700°F. and 1200°F. (R. p. 45). When the highly heated vapors contact the unvaporized oil, they furnish heat to provide a secondary decomposition or cracking within chamber 43. (R. p. 47). This secondary cracking enables further low boiling hydrocarbons to be formed. If heavy liquids are cracked in tubes, carbon deposition will take place. The cracking of the heavy oils in an enlarged chamber enables the process to run for a considerable period of time before the carbon need be removed. (R. p. 47).

The Alexander process enables the obtaining of a maximum yield of gasoline from a given quantity of crude oil. It avoids the necessity of reducing the crude in a separate still which ordinarily is an expensive operation. (R. p. 24).

In the Alexander process, it is possible to use the heat that exists *in the cracked vapors.* This heat would normally be removed by a condensation of the vapors. In Alexander, however, the heat is used to crack the residual oil and reduce it to a heavy residue or coke. This results not only in a saving of heat but increases the gasoline yield from 15-20 percent, based on the crude. (R. p. 24).

Wagner, who testified below, is a chemist who is an expert in the art, having been connected with the oil industry for the past 23 years. (R. p. 23). He gave as an example that, prior to the Alexander process, it was possible to obtain 60-65 gallons of gasoline from a crude oil. By means of the Alexander process, it was possible to obtain about 80 gallons of gasoline and at a lower cost because of increased fuel efficiency. Then, too, there was greater ease in removing the residual coke. (R. p. 24). In other words, the unvaporized oil remaining in chamber 40 contains valuable constituents which are adapted to be cracked to form low boiling hydrocarbons suitable for use as a motor fuel. If it is attempted to heat this residue in a pipe coil, heavy carbon deposits will occur, clogging the installation. By using the sensible heat of the cracked vapors to perform the cracking of the unvaporized residue, a distinct forward step in the art is accomplished. This step is, as will more fully appear from a consideration of the art, entirely novel with Alexander.

RUFF.

Ruff was of record in Alexander since since October 6, 1932. (Plaintiff's Exhibit 2). Claim 31 was allowed over Ruff. The Ruff patent is reproduced in the record, pages 80-83. In Ruff, an oil is passed through a coil 3 of a furnace 1 and heated to vaporizing temperatures. The heated oil is then passed into a chamber 4 in which the oil is mixed with a highly heated gas or steam. According to the patent, cracking occurs in this chamber. Before the operation is started, the cracking chamber is preheated. (R. p. 81, line 35). Steam or fixed gases such as hydrogen, methane, ethane or the like are superheated to a temperature between 1100° F. and 1600° F. and injected directly opposite the point of entry of the heated petroleum. (R. p. 81, line 45). Since both the liquid oil and the vapors are introduced into the cracking chamber, *both will crack.* (R. p. 28). The cracked products pass out of the cracking chamber through pipe 11, together with the hot gases which are the cracking medium. (R. p. 82). The residuum is withdrawn from the cracking chamber through a pipe 13 and passed into a chamber 12. The patentee states:

> "The hot vapors and fixed gases pass over by a pipe 11 leading into a washer 12, into the lower portion of which lead the hot heavy oils by a pipe 13 leading from the bottom of the cracking chamber. These oils are still so hot that the vapors of the condensable gases can be passed therethrough without being condensed." (R. p. 82, lines 28 *et seq.*).

The washing referred to is the washing of separated carbon from the cracked products. On page 2 of the patent, beginning at line 80, Ruff states:

> "The separated carbon does not form a coating on the walls of the container but is partly retained in the liquid products and partly carried off with the gases and vapors and is afterward removed from the latter by washing." (R. p. 82).

The patentee, on page 2 of the specification, beginning at line 4, states;

> "*All* the reactions take place in the *cracking* chamber, when the finely divided petroleum comes in intimate contact with steam or fixed gases and the heat is therefore directly applied through the *whole mass of petroleum,* in contradistinction to other processes which are carried on in kettles or pipes where the heat is externally applied."

There is no disclosure whatever in the Ruff patent of the cracking of the unvaporized residue by the heat of the hot vapors. (R. p. 29).

PERTAINING TO EGLOFF.

Egloff 1,835,762 (R. pp. 102-104) is clearly not pertinent. It will be observed that Egloff shows heating in a chamber while the claims call for heating in a pipe coil. Only a portion of the oil will be heated in the shell so that there can be no passing through an evaporating zone for flashing into vapors and unvaporized oil. The vapors from the shell 3 pass through tubes 5 into a second shell 4 in which they are superheated. Oil is withdrawn from the shell through pipe 20a and passes to a settling tank from which it is pumped by pump 28 through a line 29 for distribution through manifold 30 countercurrent to the ascending vapors. Any cracking which takes place in the shell 4 is by the heat of the hot gases passing around the shell and not by the sensible heat of the vapors. In other words, where vapors and oil are in a common zone being heated by an external source, any cracking which occurs, obviously, is from the heat of the source and not from an interchange of heat between the two materials being heated. It is believed that Egloff is relief upon merely to show a dephlegmator and a condenser.

PERTAINING TO PATENTABILITY OVER RUFF.

It will be obvious that, in Ruff, the unvaporized oil is not drawn from a vaporizing chamber but is withdrawn from a *cracking chamber* 4. Since the oil is withdrawn from the cracking chamber, besides being different in character, it will be at the same temperature as the vapors which are withdrawn from the cracking chamber together with the hot cracking medium. It is a well known law of thermodynamics that heat will never flow from a cooler body to a hotter one. Of this the Court may take judicial notice, being a well known scientific fact. Heat *always* flows from a hot body to one at a lower temperature. In chamber 12 of Ruff, vapors are contacted with an unvaporized oil. The oil, however, will not be reduced to a residue *by the heat of the cracked vapors.* The cracked vapors can have no effect upon the residue since they will be at the *same temperature* as the residue. Furthermore, there is admixed with the vapors passing into the chamber 12 through pipe 11 the *cracking medium itself.* This cracking medium, it would seem, has been heated to a very high temperature of between 1100°F and 1600°F. If there is to be any cracking in chamber 12, it will be not by the sensible heat of the cracked vapors but *by the heat of the cracking medium.*

The fact of the matter is that Ruff discloses no reducing or secondary reaction within chamber 12. He states that *all* the reactions take place in the cracking chamber. (R. p. 82).

Analyzing claim 31, it will be seen that it comprises the following steps (R. p. 7);

a. heating a hydrocarbon oil in an elongated confined stream to vaporizing temperature in a heating zone,

b. flashing the oil so heated into vapors and unvaporized oil in an evaporating zone,

c. separately withdrawing the vapors and unvaporized oil from said evaporating zone,

d. passing the vapors without substantial condensation to a conversion zone,

e. and there cracking the vapors,

f. contacting the cracked vapors with a stream of unvaporized oil withdrawn from said evaporating zone,

g. to reduce said unvaporized oil to a heavy residue, chiefly by the sensible heat of said vapors,

h. dephlegmating said vapors,

i. condensing the vapors to recover low boiling hydrocarbons.

The Ruff patent, admittedly, shows no dephlegmating or condensation steps and, to aid the Ruff patent in this admitted lack of disclosure, the Egloff patent is relied upon. (R. p. 34).

It will be seen that the separation of the heated oil into vapors and unvaporized oil and a separate vapor phase cracking of the vapors is *not* disclosed in Ruff. (R. p. 29). In Ruff, the unvaporized oil as well as the oil vapors are in a common cracking zone, from the bottom of which the cracking residue is withdrawn. *This cracking residue is physically and chemically an entirely different material than the unvaporized oil of the Alexander operation.* (R. p. 29). In rejecting claim 31 on Ruff, the several steps of the Alexander process are disregarded. It is fundamental that a process is anticipated only by a similar process. In

Carnegie Steel Co. v. *Cambria Iron Co.*, 185 U. S. 403,

the Court said:

> "In other words, a process patent can only be anticipated by a similar process. A mechanical patent is anticipated by a prior device of like construction and capable of performing the same function; but it is otherwise with a process patent. The mere possession of an instrument or a piece of mechanism contains no suggestion whatever of all the possible processes to which it may be adapted. If the mere fact that a prior device might be made effective for the carrying on of a particular process were sufficient to anticipate such process, the absurd result would follow that, if the process consisted merely of manipulation, it would be anticipated by the mere possession of a pair of hands."

There is nothing in the Ruff specification disclosing the salient feature of the Alexander process, namely, the reduction of the unvaporized oil to a heavy residue by means of the heat of the cracked vapors. (R. p. 29).

Wagner, testifying below, pointed out that the separation step was not found in the Ruff patent, that it was impossible to make a separation in a zone in which cracking was going on. (R. p. 29).

Wagner also pointed out that by separating the vapor phase cracking and the liquid phase cracking there was obtained a process that could be operated economically without clogging the vapor phase cracking tubes with carbon and burning them. (R. pp. 30 and 31).

With respect to claim 33, it will be noted that this claim contains the same limitation as does claim 31, namely that the secondary cracking or reduction of the unvaporized oil is accomplished by the *sensible heat* of the cracked vapors. This limitation does not appear in claim 32 which is somewhat broader in this respect. In claim 32, the reduction zone could be externally heated. Claim 32, however, does call for the heating, flashing, separation steps and the separate vapor phase cracking of the separated vapors. It also includes the limitation of "contacting the higher temperature cracked vapors with a lower temperature unvaporized oil to reduce the same to a heavy residue." (R. p. 7). It is respectfully submitted that claims 31 and 32 are patentable over Ruff 1,325,582 in view of Egloff 1,835,765.

PERTAINING TO KNOX 1,428,641.

This Knox patent is reproduced in the record. (pp. 84-101). It has been of record in the Alexander application since September 21, 1931. Claim 31 was allowed over Knox.

The operation of the Knox patent appears in the records beginning at page 31 in which Wagner, an expert in the art, describes it. It will be noted that a clean charging stock is used, that is, one which has been carefully fractionated and free of heavy residual oils which would result in the formation of coke. In the example given in Knox a kerosene is charged. (R. p. 90). The kerosene or charging stock is introduced through pipe 10 into a tank 7 from which it is pumped by pump 13 into a pressure tank 15, from which it passes into a first heat exchanger or evaporator 19. From the bottom of the evaporator 19, the charging stock passes through a pipe 20 into a second evaporator 21. In this evaporator, the oil rises and overflows through pipe 22 into a reaction chamber 23 which is heated in a manner similar to Ruff by heat exchange with hot gases passed thereinto through pipe 24. The gases are heated in the heater 25. The cracked vapors pass downwardly through evaporator 21 and impart some of their heat to the charging stock entering the reaction chamber 23 through the heat exchangers. According to the inventor, the process is maintained under a pressure sufficiently high to prevent the evaporation of kerosene fractions while permitting only the light fractions to vaporize. (R. p. 93 *et seq.*). A liquid level is maintained in the chambers 19, 21 and 23 indicated by the dotted line upon the drawing (Figure 1). This level is maintained by the rate at which the oil is supplied through the pump 13 and the rate at which evaporation and cracking take place within chamber 23. The vapors leave the reaction chamber at approximately 1000° F.

On page 5 of the Knox patent, line 62 (R. p. 92) the inventor states;

> "The result is that the oil is gradually heated at a comparatively lower temperature and then has its temperature raised gradually until it reaches the cracking chamber 23, and I am thereby able to apply heat gradually to the oil so that the heavier, most easily dissociable molecules of the oil will begin to break down at a point of low temperature, and the most difficultly dissociable molecules will be subjected to a gradually increasing temperature and will be dissociated in the order of their resistance to heat in the passage of the oil to the point of maximum temperature within the reaction

chamber 23. By this method of procedure, violently disruptive and destructive dissociation is prevented, carbon, tar and fixed gases, such as hydrogen, are formed only in small amounts, and a higher percentage of the hydrocarbons is converted into the desired product corresponding to the temperature and pressure conditions established, than by other methods of which I am aware. The vapors driven off in the evaporators 19, 21, pass through the pipes 42 and 43 to the pipe 29, to be mixed with the natural gas or casinghead gas heat carrier and augment its volume. By this procedure the vapors carried in the oil by absorption in the absorbing chamber are liberated largely in the evaporator 19, and the remaining heavier oil passes into the hotter evaporator 21 wherein a portion of the oil itself is evaporated, the vapors in both evaporators being trapped under the domes passing out under its own vapor pressure through the pipes 42, 43, to the pipe 29, and thence to the heating element or hydrocarbon heater 25 where the said vapors in passing through the heater meet gradually increasing temperatures, which act successively to break down the constituents of the vapor, the constituents being broken down in the inverse order of their resistance to heat, and the formation of carbon and other undesirable products largely avoided."

This, Wagner (R. p. 33) testifies, is an operation quite opposite from that of the Alexander process. It will be noted, in the first instance, that there is no unvaporized oil to reduce to a heavy residue in the Knox patent. He starts with a refined light product such as a kerosene (R. p. 90, l. 17) and seeks to avoid the formation of heavy products. On page 2 of the Knox specification (R. p. 89) beginning at line 32, Knox states;

> "In practicing my invention according to the preferred embodiment, I do not subject the oil or the liquid hydrocarbon materials to the direct action of flame applied to the wall of a receptacle, or other element in contact with the oil, so that I thereby avoid subjecting the oil to excessively high temperatures, which would result in an undesirable amount of the oil being broken down into final products, such as carbon, heavy tar, hydrogen and other light gases."

Alexander charges a crude oil, fuel oil or other heavy hydrocarbon material obtaining an unvaporized oil which is to be reduced to a heavy residue by a secondary cracking reaction. (R. p. 45; R. p. 47). The Alexander claims call for the reduction of the unvaporized oil to a heavy residue by contact with the hot cracked vapors. If this step is found in Knox at all, it would have to be in chamber 23 of Knox, but in Knox *no heavy* *residue ever enters or is produced in chamber 23.* This is pointed out by Wagner on pages 33 and 34 of the record.

Knox is open to the same objection as is Ruff. If an unvaporized oil resulting from heating and flashing is ever contacted with cracked vapors in Knox, it must be in the chamber 23 since chambers 21 and 38 are heat exchange chambers. The construction of these chambers can be seen by reference to Figure 5 of Knox. (R. p. 86). It will be noted that the oil passes upwardly through the small tubes 41, while the vapors coming down through pipe 37 pass around the outside of the tubes *so that no actual contact of the cracked vapors and heating medium with the oil entering the reaction chamber takes place in either of chambers 21 or 38.* The only contact with the preheated oil and cracked vapors occurs in the reaction chamber 23. This chamber, however, is being independently heated by the hot gases which are passed into it from the heater 25. It is difficult to understand how the Court below arrived at the conclusion that there was any contacting of cracked vapors with an unvaporized oil to reduce the unvaporized oil to heavy residue *chiefly by the sensible heat of the cracked vapors.* The Examiner recognized the distinction in allowing claim 31. In the amendment submitting claim 31, it was pointed out (R. p. 56);

> "In Knox the oil is cracked chiefly by the hot gases in the same cracking zone in which the vapors are cracked. Knox really shows a process in which a combined vapor phase and liquid phase cracking takes place by the same medium."

The examiner allowed claim 31 over Knox, which claim contained the limitation *"chiefly by the sensible heat of said vapors."*

PERTAINING TO PATENTABILITY OVER KNOX.

Knox is relied upon to reject claim 33. (R. p. 15). Claim 33 (R. pp. 7 and 8) contains the following steps;

a. heating a hydrocarbon oil to vaporizing temperature,

b. separating the heated oil into vapors and unvaporized oil *in a zone in which substantially no heat is supplied,*

c. separately withdrawing the vapors and unvaporized oil from said zone,

d. passing the vapors in an elongated confined stream while superheating for an active vapor phase cracking temperature,

e. contacting said unvaporized oil with said superheated vapors to permit the sensible heat thereof to reduce the unvaporized oil to a heavy residue,

f. recovering the lower boiling hydrocarbons from said vapors.

It will be apparent to your Honors that, in Knox, the oil is not separated into vapors and unvaporized oil *in a zone in which substantially no heat is supplied.* Heat is constantly supplied to Knox from the time the oil enters the heat exchanger 38 of chamber 19 until the oil reaches the cracking chamber 23. At no time are vapors separated in a zone in which no heat is supplied. Such gases and vapors as are separated from the oil being heated are removed through pipe 43. (Figure 1 of Knox, R. p. 84). The vapors entering the reaction chamber are in intimate contact with the cracking medium and are not passed *in an elongated confined stream* and the salient point of novelty in Alexander, namely, contacting the unvaporized oil with the superheated vapors to *permit the sensible heat thereof* to reduce the unvaporized oil to a heavy residue is not shown in Knox.

CONCLUSION.

From the foregoing, it is respectfully submitted that Conclusion of Law (1) below,

> "There is no essential difference between claims 31, 32 and 33, and claims 23-30. * * *"

is erroneous for that,

a. Claim 31 was allowed *after* the Board's decision affirming the rejection of claims 23-30 on art.

b. Claim 31 contains the limitation that the unvaporized oil is reduced to a heavy residue *chiefly by the sensible heat of said vapors,* which limitation is not contained in any of claims 23-30 or in claim 32.

c. Claim 33 contained the additional limitation that the separation of the heated oil into vapors and unvaporized oil takes place *in a zone in which substantially no heat is supplied.* This limitation is not included in claim 31, claim 32, or in claims 23-30.

d. Claim 24 does not include the limitation of heating the oil in an elongated confined stream, which limitation is present in both claims 31 and 32. There is no step in claim 24 corresponding to the flashing of a heated oil into vapors and unvaporized oil, which limitation is found in both claims 31 and 32. (R. p. 34).

It is respectfully submitted that Conclusion of Law (2) below,

> "The method defined in claims 31 and 32 does not present any material distinction over the method defined in claim 33."

is erroneous for that,

a. Claim 33 contains the limitation of separating the heated oil into vapors and unvaporized oil *in a zone in which substantially no heat is supplied.* This limitation is not found in either claims 31 or 32.

b. Claim 31 includes the limitation that the unvaporized oil is reduced to a heavy residue *chiefly by the sensible heat of said vapors.* This limitation is not found in claim 32.

It is respectfully submitted that Conclusion of Law (3) below,

> "The plaintiff, Gyro Process Company, is estopped to prosecute in the Alexander application assigned to it, claims 31, 32 and 33 because of the failure to seek a review of the first decision of the Board of Appeals in the Alexander application."

is erroneous for that,

a. Claim 31 was allowed *after* the first decision of the Board of Appeals in the Alexander application and was considered by the Examiner to distinguish over the art relied upon in the first decision.

b. The subject matter of claim 32 had been allowed by the Examiner to at least three other parties and hence can be presumed to be different from the subject matter not allowed by the Examiner, namely the subject matter of claims 23-30 which were considered in the first decision of the Board of Appeals. An estoppel cannot run to *different* and allowable subject matter.

Conclusion of Law (4) below;

> "The Gyro Process Company is estopped to prosecute in the Alexander application assigned to it, claims 31, 32 and 33 because of its failure to prosecute an appeal in the Patent Office from the decision of the Examiner of Interferences in Interference No. 67,970 holding claim 31 of the Alexander application unpatentable."

is erroneous for that,

a. Claim 31 stood allowed in the Alexander case at the time of the decision of the Examiner in Interference 67,970.

b. Alexander was not a party to Interference 67,970 nor was the subject matter of claim 31 an issue of Interference 67,970.

c. The Examiner dissolved the interference on the ground that the count thereof was unpatentable and in that Alexander had no right to make the count.

d. Alexander was entitled to two rejections of claim 31 before he had a right to take an appeal.

e. The dissolution of the interference on the ground that the count thereof was unpatentable was not a rejection in the Alexander application of claim 31 of Alexander.

The Conclusion of Law (5) below;

> "Claims 31 and 32 are not patentable over the patent to Ruff, No. 1,325,582, in view of the patent to Egloff, No. 1,835,765."

is erroneous for that,

a. Ruff does not show the step of flashing the heated oil into vapors and unvaporized oil and separately cracking the vapors. In Ruff both the oil and the vapors are cracked in a common zone.

b. Ruff does not contact the cracked vapors with "unvaporized oil" within the meaning of claims 31 and 32 for that the residual oil in the washer of Ruff is a *cracked residue* and not an unvaporized oil as called for by the claims.

c. In Ruff the residue is not reduced by the heat of the cracked vapors since there is present the heating medium which performs the cracking in the cracking zone. Ruff states that *all* his reactions take place in the reaction zone. If it can be considered that any reaction takes place in the washer 12 of Ruff, the reaction is not accomplished "chiefly by the sensible heat of the vapors" as called for by claim 31.

It is respectfully submitted that Conclusion of Law (6) below;

> "Claim 33 is not patentable in the Alexander application in view of the Knox patent, No. 1,428,641."

is erroneous for that,

a. There is no step in Knox corresponding to "separating the heated oil into vapors and unvaporized oil in a zone in which *substantially no heat is supplied*" found in Knox.

b. The sensible heat of the cracked vapors does not reduce the unvaporized oil to a heavy residue. No heavy residue at all is formed in Knox and if any cracking of the unvaporized oil takes place in Knox it is by the superheating medium in a reaction zone and not by the sensible heat of the cracked vapor.

Wherefore, it is respectfully submitted that the plaintiff is entitled to a patent on the Alexander application in suit containing claims 31, 32, and 33. It is prayed that the decree below, dismissing the bill of complaint should be reversed.

Respectfully,

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